

NOTES ON THE GENUS CLERODENDRUM (VERBENACEAE). XII

Harold N. Moldenke

CLERODENDRUM Burm.

Additional & emended bibliography: L. in Torner, Cent. Pl. 2: 23. 1756; Osbeck, Dagbok Ostind. Resa [Itin.] 92, 215. & 228. 1757; L., Amoen. Acad. 4: 320. 1759; Osbeck, Voy. China E. Indies 1: 369, pl. 11. 1771; Pers., Sp. Pl. 3: 362--366. 1819; Steud., Nom. Bot. Phan., ed. 1, 207--208, 578, & 889--890. 1821; Lindl., Edwards Bot. Reg. 11: pl. 945 (1826) and 12: pl. 956 & 1035. 1826; Hook. & Arn., Bot. Beech. Voy. 205. 1836; Hassk., Flora 25: Beibl. 27. 1842; Hance in Walp., Ann. Bot. Syst. 3: 238. 1852; Lem., Jard. Fleur. 4: Misc. 47--48. 1855; Seem., Bot. Voy. Herald 405. 1857; F. Muell., Fragm. Phyt. Austral. 3: 144--145. (1863) and 9: 5. 1875; F. Muell., Descrip. Notes Papuan Pl., imp. 1, 5: iii & 90--91. 1875; F. Muell., First Census 103. 1882; F. M. Bailey, Syn. Queensl. Fl. 381. 1883; F. M. Bailey, Proc. Roy. Soc. Queensl. 1: 71. 1884; Palmer, Proc. Roy. Soc. N. S. Wales 17: 108. 1884; Henriq., Bol. Soc. Brot. 3: 144, 1885; F. M. Bailey, Queensl. Woods 93. 1888; TATE, Handb. Fl. Extratrop. S. Austral. 156 & 254. 1890; Moore, Handb. Fl. N. S. Wales 357. 1893; Tepper, Bot. Centralbl. 54: 260. 1893; Sims, Sketch Check-list Fl. Kaffr. 63. 1894; Tate in Horn, Sci. Exped. Cent. Austr. 3: 175. 1896; Schinz, Abhandl. Senckenb. Naturf. Gesell. 21: 90. 1897; Durand & DeWild., Bull. Soc. Roy. Bot. Belg. 37: 124. 1898; F. M. Bailey, Queensl. Woods 106. 1899; Banks & Soland., Illust. Austral. Pl. 2: [Bot. Cook Voy.] 75, pl. 239. 1901; Voeltzkow, Abhandl. Senckenb. Naturf. Gesell. 26: 552. 1902; F. M. Bailey in Meston, Expl. Bell.-Ker (Parliam. Rep.) 14. 1904; DeWild., Ann. Mus. Cong. Belg. Bot. ser. 5, 3: 122, 131--138, & 255, pl. 11 & 23. 1909; F. M. Bailey, Queensl. Agric. Journ. 27: 67. 1911; Hemsl., Kew Bull. Misc. Inf. 1919: 128. 1919; Galpin, Bot. Surv. S. Afr. Mem. 7: 13. 1925; Domin, Bibl. Bot. 22 (89): 1112. 1928; E. D. Merr., Sunyatsenia 1: 30. 1930; Watt & Breyer-Brandwijk, Med. Poison. Pl. S. East Afr., ed. 1, 154--155 & 230. 1932; W. F. Hoffm., Lingn. Sci. Journ. 16: 301. 1937; J. Hutchins., Botanist S. Afr. 339, 363, & 672. 1946; R. O. Williams, Useful Ornament. Pl. Zanzib. 61, 63, 66, 95, & 358. 1949; Backer, Blumea 6: 359. 1950; Menninger, 1950-1951 Offering 300 Diff. Flow. Trop. Trees [3]. 1950; Wild, Rhodes. Agric. Journ. 49: 289. 1952; Wild, Veg. South. Rhodes. Term. 11. 1952; Menninger, 1953 Cat. Flow. Trop. Trees 33. 1953; Menninger, 1954 Price List [2] (1954) and 1956 Price List [4]. 1955; Pardy, Rhodes. Agric. Journ. 52: 414. 1955; Wild, Observ. Veg. Sabi 8. 1955; Wild, Rhodes. Agric. Journ. 52: 538. 1955; Anon., Assoc. Etud. Tax. Fl. Afr. Trop. Ind. 1955: 63. 1956; Menninger, 1959 Price List [2]. 1958; Killick, Bot. Surv. S. Afr. 32: 50, 70, & 112. 1959; Martin & Neal, Fl. Albany Bathurst 92. 1960; Menninger, Flow. Trees World 282, 283, 313, 314, 317, 320, & 325. 1962; White, For. Fl. North. Rhodes. 365 & 367. 1963; J. S. Beard, Descrip. Cat. W. Austral. Pl., ed. 1, 91. 1966; R. H. Compton, Journ. S. Afr. Bot. Suppl. 6: 66 & 156. 1966; C. A. Sm., Comm. Names S. Afr. Pl. 106, 439, 469, 498, & 600. 1966; Moll, For. Trees Natal 139. 1967; J. M. Watt, Lloydia 30: 2, 4, & 12. 1967; Moll, Journ. S. Afr. Bot. 34: 75. 1968; Wild, Kirkia 7: 29 & 53. 1968; Gledhill, East. Cape Veld Fls. 201, fig. 2. 1969; Richards

& Morony Check List Fl. Mbala 236 & 237. 1969; Stearn, Notes Rec. Roy. Soc. Lond. 24: 83. 1969; Van der Schijff, Check List Vasc. Pl. Kruger. Natl. Park 81. 1969; Farnsworth, Pharmacog. Titles 5 (1): v & titles 13561, 14758, & 15121. 1970; Fosberg, Atoll Res. Bull. 136: 109. 1970; Fosberg & Renvoize, Atoll Res. Bull. 136: 64, 109, & 152. 1970; Gillett, Numb. Check-list Trees Kenya 46. 1970; Stoddart, Benson, & Peake, Atoll. Res. Bull. 136: 127. 1970; D. R. W. Alexander, Hong Kong Shrubs 25 & 28. 1971; Chippendale, Proc. Linn. Soc. N. S. Wales 96: 256. 1971; Fosberg, Phil. Trans. Roy. Soc. B. 260: 218 & 225. 1971; Renvoize, Phil. Trans. Roy. Soc. B. 260: 230. 1971; Palmer & Pitman, Trees South. Afr., ed. 2, 3: 1963--1965 & 1967. 1972; Venter, Journ. S. Afr. Bot. 38: 231. 1972; Altschul, Drugs Foods 247 & 248. 1973; Jacobson, Kirkia 9: 172. 1973; Moriarty, Wild Fls. Malawi 139 & 140, pl. 70, fig. 1--4. 1975; Renvoize, Kew Bull. 30: 151. 1975; Venter, Journ. S. Afr. Bot. 42: 216 & 230. 1976; Lebrun & Stork, Ind. Cart. Répart. Pl. Vasc. Afr. 32. 1977; Hocking, Excerpt, Bot. A. 30: 419--421. 1978; Isaacson, Flow. Pl. Ind. 1: 335. 1979; F. Muell., Descrip. Notes Papuan Pl., imp. 2, 5: 90--91 & iii. 1979; Fosberg & Renvoize, Kew Bull. Addit. Ser. 7: [Fl. Aldabra] 7 & 219--222, fig. 35 (3 & 4). 1980; Pal, Bull. Bot. Surv. India 22: 96--99. 1980; Ahmed, Chander, & Pereira, Int. Pest Control 23: 170--175. 1981; Francis, Austral. Rain-for. Trees, ed. 4, 367. 1981; Anon., Biol. Abstr. 75: 4154 & 9495. 1983; Mold., Phytologia 58: 432--462. 506, 507, 509, 511, & 512. 1985; Thompson & Morgan, Seed Cat. 1986: 55. 1985; Trujillo, Ernstia 35: 18. 1985.

CLERODENDRUM ANAFENSE Britton & P. Wils.

Additional bibliography: Grey & Hubbard, List Pl. Atkins Inst. 59; 1933; Mold., Phytologia 57: 476--478. 1985.

CLERODENDRUM ANGUSTIFOLIUM (Poir.) Spreng.

Additional & emended bibliography: Steud., Nom. Bot. Phan., ed. 2, 1: 382. 1840; Mold., Phytologia 57: 482--484. 1985.

The *Clerodendrum angustifolium* R. A. Salisb. (1796), which appears at first glance to invalidate the *C. angustifolium* (Poir.) Spreng, does not do so because Salisbury's use of the epithet was superfluous (being merely a substitute name for *C. fortunatum* of Linnaeus) and therefore was illegitimate and invalid.

CLERODENDRUM BUCHANANI (Roxb.) Walp.

Additional bibliography: Mold., Phytologia 58: 283--294. 339, & 345. 1985.

A key for distinguishing this species from some other cultivated taxa is given under *C. bethunianum* Low in this present series of notes.

CLERODENDRUM BUCHANANI var. GLABRUM (H. J. Lam) Mold.

Additional bibliography: Mold., Phytologia 58: 291 & 293--294. 1985.

A key for distinguishing this taxon from some other commonly cultivated taxa in this genus is given under *C. bethunianum* Low in the present series of notes.

CLERODENDRUM BUCHHOLZII Gürke

Additional bibliography: A. Chev., Étud. Fl. Afr. Cent. Franç. 1: 245. 1913; Mold., Phytologia 58: 294--300. 1985.

Chevalier (1913) lists an unnamed "var." of *Clerodendron schifferei* A. Chev., based on Chevalier 10905, from lower Ubangi in the Central African Republic, which may belong here.

CLERODENDRUM BUCHNERI Gürke

Additional bibliography: Prain, Ind. Kew. Suppl. 5, imp. 1, 61 (1921) and imp. 2, 61. 1960; Mold., Phytologia 58: 330, 426, & 435. 1985.

CLERODENDRUM BUNGEI Steud.

Additional & emended bibliography: Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 87--89, 108, 109, iii, & viii. 1921; Mold., Phytologia 58: 332--348, 407, 416, & 460. 1985.

CLERODENDRUM CALAMITOSUM L.

Additional & emended bibliography: Steud., Nom. Bot. Pnan., ed. 2, 1: 382. 1840; Mold., Phytologia 58: 401--409 & 460. 1985.

A key to distinguish this species from some other commonly cultivated taxa in this genus may be found under *C. bethunianum* Low in the present series of notes.

CLERODENDRUM CAPITATUM (Willd.) Schum. & Thonn.

Additional synonymy: *Clerodendron francavilleianum* "Buchinger ex Baker" apud Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 86 & 109 in syn. 1921. *Clerodendron francivilleianum* Buch. ex Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: viii in syn. 1921.

Additional & emended bibliography: Buek, Gen. Spec. Syn. Candoll. 3: 105 & 502. 1858; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 75, 86, 109, & viii. 1921; Mold., Phytologia 58: 432--442. 1985.

The *Clerodendron capitatum* var. *subdentatum* DeWild., included in the synonymy of *C. capitatum* by me up until now, proves, instead, to belong in the synonymy of *C. frutectorum* S. Moore.

A key to distinguish *C. capitatum* from some other commonly cultivated taxa of this genus may be found under *C. bethunianum* Low in the present series of notes.

CLERODENDRUM CAPITATUM var. **CEPHALANTHUM** (Oliv.) J. G. Baker

Additional bibliography: Mold., Phytologia 58: 432--436. 1985.

A key to distinguish this taxon from other commonly cultivated species and varieties in this genus will be found under *C. bethunianum* Low in the present series of notes.

CLERODENDRUM COLEBROKIANUM Walp.

Additional synonymy: *Clerodendron glandulosum* "Colebr. ex O. Ktze." apud Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 109 in syn. 1921.

Additional & emended bibliography: Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 75, 87, 88, 108, 109, & viii. 1921; P'ei, Mem. Sci. Soc. China 1 (3): 125 & 158--159. 1932; Fletcher, Kew Bull. Misc. Inf. 1938: 405, 425, & 430. 1938; Mold., Phytologia 58: 454--462. 1985.

A key to distinguish this species from some other commonly cultivated taxa in this genus is given by me under *C. bethunianum* Low in the present series of notes.

CLERODENDRUM COMANS Mold.

Additional bibliography: Mold., Phytologia 58: 462. 1985.

Midrib very slender, flat above, prominulous beneath; secondaries very slender. 7--10 per side, arcuate-ascending, usually indiscernible above, subprominulous beneath; vein and veinlet reticulation mostly indiscernible on both surfaces; cymes aggregated at the tips of the branchlets, few-flowered, persistently bracteate, densely fulvous-tomentellous throughout; peduncles slender, about 1.5 cm. long, densely fulvous-tomentellous; pedicels slender, 2--3 mm. long, densely fulvous-tomentellous; bracts numerous, persistent, conspicuous, foliaceous, elliptic-obovate, to 1 cm. long and 4 mm. wide, short-pubescent on both surfaces; bractlets and prophylla comparatively large, linear or oblong, more or less foliaceous, densely short-pubescent on both surfaces; calyx membranous, obconic-tubular, brunnescent in drying, 1.4--1.7 cm. long, to 1 cm. wide, rather densely puberulent on the outer surface, the rim distinctly 5-lobed, the lobes ovate, about 3 mm. long and wide, apically acute; corolla infundibular, its tube gradually ampliate from base to apex, about 2 cm. long, externally obscurely and irregularly pulverulent-puberulent, the limb 5-lobed, the lobes 1--1.5 cm. long, apically rounded; fruiting-calyx and fruit not known.

This species is based on *Richard Baron 5909*, collected somewhere in Madagascar and deposited in the Paris herbarium. A key to distinguish it from the other known taxa in Madagascar is given by me under *C. baronianum* Oliv. in this present series of notes. Thus far it is known only from the original collection.

Citations: MADAGASCAR: *Baron 5909* (E--photo of type, F--photo of type, Ld--photo of type, N--fragment of type, N--photo of type, P--type):

CLERODENDRUM CONDENSATUM Miq.

This taxon, included among the accepted taxa in my 1980 "Sixth Summary", is now regarded by me as a synonym of *C. bracteatum* var. *sumatranum* Ridl., which see.

CLERODENDRUM CONFUSUM H. Hallier, Meded. Rijks Herb. Leid. 37: 65--66. 1918.

Synonymy: *Clerodendrum infortunatum* Miq. ex H. Hallier, Meded. Rijks Herb. Leid. 37: 65 in syn. 1918 [not *C. infortunatum* Auct., 1935, nor Dennst., 1959, nor Gaertn., 1778, nor Hassk., 1918, nor L., 1753, nor Lindl., 1918, nor Lour., 1935, nor Retz., 1772, nor Vent., 1821, nor Wight, 1918, nor Willd., 1976, nor *Clerodendron infortunatum* Auct., 1963, nor Blume, 1918, nor Bot. Reg., 1895, nor Dennst.,

1893, nor L., 1858, nor F.-Vill., 1882, nor Gaertn., 1885, nor Lam., 1947, nor Lour., 1793, nor Schau., 1847, nor Walp., 1843, nor Wight, 1850]. *Clerodendron confusum* H. Hallier apud H. J. Lam, Verbenac. Malay. Arch. 290 & 363. 1919.

Bibliography: H. Hallier, Meded. Rijks Herb. Leid. 37: 65--66. 1918; H. J. Lam, Verbenac. Malay. Arch. 290 & 363. 1919; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 90, 108, iii, & viii. 1921; A. W. Hill, Ind. Kew. Sunpl. 6: 49. 1926; Bakh., Journ. Arnold Arb. 16: 70--71 & 472. 1935; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 63, 64, 68, 72, & 89. 1942; Mold., Alph. List Cit. 1: 16 (1946), 3: 941 (1949), and 4: 987. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 143, 144, 150, 158, & 180. 1949; Mold., Résumé 187, 189, 190, 204, 215, & 449. 1959; T. C. Whitmore, Guide For. Brit. Solom. Isls. 173. 1966; Altschul, Lloydia 33: 195--198. 1970; Farnsworth, Pharmacop. Titles 5 (10): vii & title 11888 (1970) and 5 Cum. Gen. Ind. 1971; Mold., Fifth Summ. 1: 322, 340, & 358 (1971) and 2: 864. 1971; Foreman, Div. Bot. Dept. For. N. Guin. Bot. Bull. 5: 63. 1972; Altschul, Drugs Foods 247. 1973; Mold., Phytol. Mem. 2: 313, 330, 348, & 535. 1980; Mold., Phytologia 50: 253 (1982) and 58: 291 & 353. 1985.

A shrub or tree, to 20 m. tall; trunk to 35 cm. in girth; bark pale-brown, inner bark pinkish; sapwood soft, pale-yellow; branchlets rather slender, 3.5--6 mm. in diameter, obtusely tetragonal or terete, rather densely appressed-puberulent with short, cinereous or brownish, strigose hairs, often somewhat flattened at the nodes; nodes obscurely annulate; principal internodes 5.5--9 cm. long; leaves decussate-opposite; petioles stout, 2--19 cm. long, appressed-puberulent like the branchlets, mostly collapsing basally in drying; leaf-scars not borne on spurs; leaf-blades thin-chartaceous, dark-green above, light-green beneath, ovate or obcordate, 9--20 cm. long, 6--14 cm. wide, apically abruptly acuminate, marginally entire or obsolete and irregularly repand-dentate, basally varying from acute (on smaller leaves) to truncate, very sparsely scattered-pilose or -strigillose above, more densely so on the larger venation, more densely strigillose beneath, especially on the larger venation, with cinereous hairs, prominently palmate- and clathrate-veined and minutely glandular-punctulate beneath and usually marked with a few, rather large, crateriform glands near the base and along the larger veins, the base slightly bullate; midrib slender, flat or subprominent above, rounded-prominent beneath; secondaries slender, 5--7 per side, ascending, not much arcuate, obscurely joined in many loops at the very apex or else not joined, mostly flat above, prominent beneath; tertiaries numerous and conspicuous, issuing at right angles to the larger veins and connecting them, parallel, flat but plainly visible (rarely obscure) above, prominent beneath; veinlet reticulation rather sparse, indiscernible above; inflorescence terminal, paniculate, the panicles 15--19 cm. long, 9--10 cm. wide, with 3--5 pairs of opposite, rather distant branches, each branch rather few-flowered and widely divergent; peduncles elongate, 5.5--7 cm. long, along with the rachis densely appressed-puberulent like the branchlets, the sympodia 1.5--4 cm. long, usually elongate; bracts usually

1 pair at the base of the lowest pair of inflorescence-branches or a pair subtending each pair of branches, the lowest largest, foliaceous, to 6 cm. long and 2.5 cm. wide, long-stipitate, similar to the leaves in all respects or more elliptic, the upper ones usually much smaller; pedicels about 2 mm. long; calyx cyathiform, green or light-green, externally cinereous-pubescent, basally marked with rather large discoid nectary glands 5-fid to $1/3$ or $1/2$ its length, the tube about 5 mm. long, the lobes about 4 mm. long, apically acuminate, with a rather inconspicuous median vein; corolla hypocrateriform, white, the tube about 1 cm. long, slightly surpassing the calyxlobes, externally cinereous-pubescent, the lobes 6--8 mm. long, dorsally cinereous-pubescent; stamens about 3 cm. long, long-exserted; style long-exserted; fruiting-calyx much enlarged, coriaceous, venose, partly enclosing the fruit, the tube 6--8 mm. long, the lobes 6--10 mm. long; fruit drupaceous, globose, about 8 mm. long and wide.

Hallier's description of this much misunderstood species is "Praecedenti [*C. infortunatum* L.] arcte affine, sed notis compluribus bene distinctum. Ramuli teretes vel obtuse tetragoni, brevissime cinereo-puberuli. Foliorum petiolus longus, lamina ovata vel cordata, acuminata, integerrima vel obsolete et irregulariter repando-dentata, subtus prominenter palmato- et clathrato-nervosa, utrinque in nervis pubescens et praeterea ubique pilis sparsis patulis scabra, subtus ubique minute glanduloso-punctulata et imprimis prope basin et nervos robustiores glandulis pezizaeformibus quam in sp. praecedente rarioribus et multo majoribus praedita, basi haud bullata. Calyx cyathiformis, usque $1/3$ vel $1/2$ longitudinis tantum 5-fidus, extus cinereo-pubescent et praeter basin glandulis discoideis sat magnis obspersus, lobis acuminatis, nervo mediano quam in sp. praecedente multo minus conspicuo, circa fructum tantum magis prominente, in fructu valde auctus, coriaceus, nervosus, coloratus, drupam (globosam) subinvolucrans. Corollae tubus calycis lobos parum excedens, extus sicut lobi cinereo-pubescent. Genitalia longe exserta. Ramuli 3,5--6 mm crassi. Foliorum petiolus 2--19 cm longus, lamina 9--20 cm longa, 6--10 cm lata. Pedicellus 2 mm, calycis tubus c. 5 mm, lobi 4 mm, corollae tubus 1 cm, lobi 6--8 mm, stamina 3 cm longa. Calycis fructigeri tubus c. 6--8 mm, lobi 6--10 mm longi. Drupa c. 8 mm diametro."

The species is based on *Boerlage s.n.* from Buitenzorg, Java, collected on December 19, 1888, *Boerlage s.n.* from Kampong Baruh [=Neudorf] near Buitenzorg, collected October 27, 1888, a *Collector undetermined s.n.* from Karimandjawa, and a *Teijsmann s.n.* sent in 1867 from the Buitenzorg botanical garden and said to have originated in Sumatra. Hallier (1918) records the vernaculat name "kembang bugang" and classifies the species in Schauer's Section *Paniculata*.

Collectors have encountered this plant at the edges of forests and Kajewski states that on Bougainville island it is common in rain-forests. His *no. 1667* has especially elongated calyces. The species has been collected from sealevel to 1200 m. altitude, in anthesis in March, July, and October, and in fruit in March, October, and November. Whitmore (1966) cites *Brass 2919 & 3403* from the Solomon Islands, while Foreman (1972) -- whose publication was issued in

1972, not "1971" as stated on the titlepage -- cites *Kajewski* 1687, 1925, & 1978 from Bougainville.

The corollas are uniformly described as "white" (viz., *Kajewski* 1687, *McKee* 1606, *Petrus & Patrick* SAN.90643).

Kajewski lists the vernacular names "kaka-fair" and "koru-kopu", and tells us that on Bougainville the natives use this plant medicinally -- the wet sappy part of stripped bark is applied to sore spots on the body, the leaves are boiled in water and the decoction is then applied to sore legs, and body sores and skin diseases are treated with a mash made from leaves that have been allowed to rot in water.

In the synonymy listed above the *Clerodendron/Clerodendrum infortunatum* accredited to "Auct." [auctororum or unidentified authors], to Blume, and to Schauer is a synonym of *C. viscosum* Vent., while that credited to Dennstedt, to Hasskarl, to Walpers, and to Wight is *C. villosum* Blume, that credited to Lindley and "Bot. Reg." [Botanical Register] is *C. speciosissimum* Van Geert, to Fernandez-Villars is *C. minahassae* Teijsm. & Binn., to Lamarck is *C. petasites* (Lour.) S. Moore, to Retzius and to Ventenat is *C. infortunatum* L., to Linnaeus is in part *C. infortunatum* L. and in part *C. villosum* Blume, to Loureiro is in part *C. kaempferi* (Jacq.) Sieb. and in part *C. viscosum* Vent., and to Gaertner and to Willdenow is in part *C. infortunatum* L. and in part *C. viscosum* Vent.

Bakhuizen (1935) cites *Kajewski* 1687, 1925, & 1978 from Bougainville, *Kajewski* 2341 from Malaita, *Kajewski* 2502 from Gaudalcanal, Brass 2919 from San Cristoval, and Brass 3403 from Ysabel in the Solomon Islands, recording the vernacular names there "ambus-gor-le-le", "e-ya-papor", "fuho", "kaka-fair", and "koru-kopu". He comments that "This species is closely related to *C. buruanum* Miq. which differs in the much longer corolla-tube and also to *C. infortunatum* L., which has a glabrous corolla and a longer corolla-tube. Nevertheless all these species may perhaps be considered as only extreme forms of *C. infortunatum* L."

It seems probable that the *Koorders* s.n. cited below is actually the *Collector undesignated* s.n. collection referred to by Hallier among his cotypes (syntypes) of this species, although in 1893 the sheet containing this specimen was annotated by Hallier himself as *C. blumeum* Schau.

Material of *C. confusum* has been misidentified and distributed in some herbaria as *C. blumeum* Schau. (a very different species) and as the very closely related *C. infortunatum* L. and *C. viscosum* Vent., while Backer has suggested that Backer 22055 and Hallier s.n. [14. VIII.1896] may represent a natural hybrid between *C. infortunatum* and *C. villosum* Blume. On the other hand, the Brass 2919 & 3403 and *Kajewski* 1925 & 1978, distributed as and cited by some authors (above) as *C. confusum*, are actually *C. buruanum* f. *lindavianum* (Lauterb.) Bakh.

Citations: GREATER SUNDA ISLANDS: Java: Backer 22055 (Bz--19072, Bz--19073, Bz--19074, Bz--19075, Bz--19076. Bz--25496, K, Ld--photo, Mi--photo, N, N--photo, Ut--63768); Bakhuizen 6311 (Br, Bz--19064, Bz--19065, Bz--19066, Bz--25493, Ca--301398, Ut--80177); Franssen

s.n. (Bz--19078); H. Hallier s.n. [17.III.1893] (Bz--19070, Bz--19071), s.n. [14.VIII.1896] (Bz--19067, Bz--19068, Bz--19069); Slooten 560 (Bz--19062, Bz--19063, Bz--19077, K); Van Steenis 587 (Bz--19061). Karimandjawa: Karta 192 (B, Bz--19083, Bz--25492); Koorders 41242b (Bz--19079), 41466b [108*] (Bz--19080), s.n. (Bz--19081--cotype, Bz--19082--cotype, Ld--photo of cotype, N--photo of cotype). Kemoedjan: Karta 391 (Bz--19083, Bz--25492). Sabah: Petrus & Patrick SAN.90643 (Ld). Sumatra: Jacobson 3013 (Bz--19085). SOLOMON ISLANDS: Bougainville: Kajewski 1687 (Bi, Bz--19087, Bz--19100). Malaita: McKee 1606 (Ng). CULTIVATED: Java: Teijsmann 2648HB (Bz--19059--cotype, Bz--19060--cotype), s.n. [Hort. Bogor. 1867] (Ld--photo, Le, N--photo, S--photo), s.n. [Hort. Bogor. 1868] (K).

CLERODENDRUM CONGOLENSE Gürke ex Vergiat, Journ. Agr. Trop. Bot. Appliq. 17: 335 [as "*Clerodendron*"] 1970; Mold., Fifth Summ. 1: 228. 1971.

Synonymy: *Clerodendron congolesense* Gürke ex Vergiat, Journ. Agr. Trop. Bot. Appliq. 17: 335. 1970.

Bibliography: Vergiat, Journ. Agr. Trop. Bot. Appliq. 17: 335. 1970; Mold., Fifth Summ. 1: 228 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 218 & 535. 1980.

The original description given by Vergiat (1970) is: "Sous-arbrisseau dressé de forêt, taille 1 m à 1,50 m à très larges feuilles, tige ligneuse et tubulaire. Floraison: gros capitules à bractées violettes, fleur blanc crème à très long tube, de 15 cm minimum." He also reports that a decoction of the seeds is poisonous, producing symptoms of intoxication, nervous trembling, cold chills, vertigo, and swooning. As an antidote he recommends a decoction of the bark of *Berlinia acuminata*, a caesalpinjiaceous legume.

Nothing else is known to me of this taxon and it is not listed in the Index Kewensis. Possibly it may be an error for *C. congoense* Engl. [now known as *C. umbellatum* var. *congoense* (Engl.) Mold.], although the description and the use of the authority "Gürke" render this unlikely.

CLERODENDRUM CONSORS S. Moore, Journ. Bot. Brit. 57: 248 [as "*Clerodendron*"]. 1919; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 39, 68, & 92. 1936.

Synonymy: *Clerodendron consors* S. Moore, Journ. Bot. Brit. 57: 248. 1919. *Clerodendron lupakense* S. Moore, Journ. Bot. Brit. 57: 247--248. 1919. *Clerodendron lupakense* S. Moore apud B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 68 in syn. 1936.

Bibliography: S. Moore, Journ. Bot. Brit. 57: 247--249. 1919; A. W. Hill, Ind. Kew. Suppl. 6: 49. 1926; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 39, 68, & 92. 1942; Mold., Alph. List Inv. Names 18. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 48 & 89 (1942) and ed. 2, 115 & 180. 1949; Mold., Résumé 141, 266, & 449. 1959; Mold., Fifth Summ. 1: 228 & 450 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 218 & 535. 1980; Mold., Phytologia 58: 200. 1985.

A shrub; branches leafy, at first softly pubescent, later glabrescent; leaves decussate-opposite; petioles to 2.5 cm. long, pubes-

cent, basally articulate; leaf-blades membranous, paler beneath, ovate or oblong-ovovate, about 11 cm. long and 6 cm. wide, gradually diminishing in size upwards, the floral ones about 3 cm. long and 1.5 cm. wide, all apically cuspidate-acuminate with an obtuse acumen, marginally undulate, basally sometimes somewhat oblique and subrotund or obtuse, glabrous and shiny above, sparsely pubescent on the venation beneath; inflorescence terminal, in all 7.5--10 cm. long and 4 cm. wide, pubescent; cymes short, few-flowered, supra-axillary, forming a thyrsoid, often foliaceous panicle; bracts linear, about 3 mm. long; pedicels 2--4 mm. long; calyx cylindric-infundibular, in all 7--8 mm. long and 2--3 mm. wide, externally sparsely pubescent, the tube broadly cylindric, the lobes deltoid, scarcely 2 mm. long, shorter than the tube, apically acute; corolla-tube about 1.4--1.5 cm. long, surpassing the calyx, basally 1.5--2 mm. wide, apically attenuate, ampliate below the limb to 3 mm., glabrous, the lobes suborbicular to broadly ovate, subequal, 3--4 mm. long and wide, apically obtuse; stamens exerted about 5 mm. beyond the corolla-mouth.

In order to compare the characters of Moore's supposed two separate species (1919) his descriptions are given herewith: *C. lupaken-ge* is described as "Ramis foliosis molliter pubescentibus deinde glabrescentibus; foliis oppositis ovatis vel oblongo-obovatis apice cuspidato-acuminatis ipso obtusis basi interdum aliquantulum obliquis subrotundatis vel obtusis margine undulatis. petiolis pubescentibus basi articulatis insidentibus membranaceis supra glabris nitidisque subtus in nervis sparsim pubescentibus; cymis brevibus paucifloris supra axillas foliorum diminutorum affixis paniculam thyrsoidem foliaceam efficientibus; floribus submediocribus pedicellatis; calycis sparsim pubescentis tubo late cylindrico quam lobi deltoidei acuti plabe longiore; corollae tubo calycem facile siperante basi dilatato inde attenuato ipso sub limbo ampliato glabro lobis inter se subaequalibus suborbicularibus; staminibus usque circa 5 mm. exsertis. Belgian Congo, Lupaka river; *Kassner*, 2458 in part. Foliorum limbus usque 11 x 6 cm., superiora vero gradatim diminuta; folia floralis \pm 3 x 1.5 cm.; folia omnia pag. inf. pallidiora; petioli summum 2.5 cm. long. Inflorescentia tota circa 10 x 4 cm., pubescens. Bractee lineares, \pm 3 mm. long. Pedicelli 2--3 mm. long. Calyx in toto 8 mm. long., 3 mm. lat.; lobi soli vix 2 mm. long. Corollae tubus 14 mm. long., basi 2 mm. lat., mox usque 1 mm. subito constrictus, sub limbo 3 mm. lat.; lobi 4 x 4 mm."

C. consors is described as "Ramulis foliisque praecedentis [*C. lupakense*]; floribus pedicellatis cymosis cymis in paniculam terminalem quam folia breviora foliis floralibus carentem digestis; calyce cylindrico-infundibulari pubescente quam lobi deltoidei acuti longiore; corollae tubo calycem bene excedente attenuato sub limbo dilatato glabro lobis inter se subaequalibus late ovatis obtusissimis; staminibus usque 5 mm. exsertis. Belgian Congo, Lupaka river; *Kassner*, 2458 in part. Inflorescentia 7.5 x 4 cm. Bractee lineares, \pm 3 mm. long. Pedicelli summum 4 mm. long. Calyx 7 mm. long., 2 mm. lat.; lobi vix 2 mm. long. Corollae tubus 15 mm. long., ima basi 1.5 mm. fere usque ad limbum 1 mm. ipso sub limbo 2 mm. lat.; lobi 3 x 3 mm."

He comments that "The affinity of both the above is with *C. Barteri* Baker, but probably still more close with *C. Bequaerti* de Wild. From this latter both are separated by the not denticulate-runcinate leaves, the larger calyx and corolla, glabrous outside, and with broader lobes. As between themselves the chief points of distinction are the inflorescence, the cymes mixed with floral leaves in the one case and without them in the other, and the longer and broader calyx of *C. lupakense*. To judge from the description in Fedde, Rep. xiii. 144, the inflorescence of *C. Bequaerti* is that of *C. lupakense*." Under *C. bingaense* S. Moore he notes that that this species "Differs from *C. lupakense* chiefly in foliage and corolla."

Thomas (1936), citing only Kassner 2458, comments: "Hier sind 2 Arten auf denselben Typus begründet worden; die angegebenen Unterschiede beziehen sich auf variable Verhältnisse, wie sie an ein und demselben Zweig auftreten, und sind sehr gering; es ist mir unverständlich, welche Gründe den Autor veranlassten, hier aus einer Art zwei neue Spezies aufzustellen."

Nothing is known to me of this controversial taxon beyond what is stated in the above bibliography.

CLERODENDRUM CORBISIERI DeWild.. Feddes Repert. Spec. Nov. 13: 144 [as "*Clerodendron*"]. 1914; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 47, 84, & 92. 1936.

Synonymy: *Clerodendron corbisieri* DeWild., Feddes Repert. Spec. Nov. 13: 144. 1914.

Bibliography: DeWild., Feddes Repert. Spec. Nov. 13: 144 & 145. 1914; Fedde & Schust., Justs Bot. Jahresber. 42: 252. 1920; Prain, Ind. Kew. Suppl. 5, imp. 1. 61. 1921; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 47, 84, & 92. 1936; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 48 & 89. 1942; H. N. & A. L. Mold., Pl. Life 2: 54. 1948; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 115 & 180. 1949; Mold., Résumé 141 & 449. 1959; Prain, Ind. Kew. Suppl. 5, imp. 2, 61. 1960; Mold., Résumé Suppl. 12: 5 & 6. 1965; Mold., Fifth Summ. 1: 228 & 242 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 218, 232, 384, & 535. 1980.

A many-stemmed, erect, perennial herb, 25--40 cm. tall, with a woody basal rhizome, the remainder annual; stems greenish-brown; branches erect, to 35 cm. long, not re-branched, shortly velutinous, slightly scabrous; leaves opposite or in whorls of 3 or 4, sessile; leaf-blades lanceolate-obovate, 5--10 cm. long, 0.8--1.5 cm. wide, apically long-cuneate, marginally subentire or irregularly undulate, basally more or less long-attenuate-narrowed, velutinous-scabrous on both surfaces; inflorescence loosely paniculate, very leafy; peduncles about 2.5 cm. long; cymes ramose, bracteolate, composed of 3-flowered glomerules; bractlets about 2.5 mm. long, velutinous; pedicels 2--3 mm. long, velutinous; calyx about 5.5 mm. long, externally sparsely velutinous, ciliate, the lobes cuneate, not rounded; corolla blue or violet; fruit at first green, later blue.

The species is based on *Corbisier* 592 (actually collected by Homblé) from Welgelegen in Upper Katanga, Zaire, deposited in the Brussels herbarium. The type collection is also sometimes cited as

Corbisieri & Florent 592, while Fedde & Schuster (1920) cite it as *Hombld* 592.

DeWildeman (1914) correctly notes that this species is related to *C. erectum* DeWild., *C. luembense* DeWild., *C. myricoides* (Hochst.) R. Br., and *C. ringoeti* DeWild. in the Subgenus *Cyclonema*.

Leistner reports finding the plant growing on gray sandy flats with open savanna. It has been collected at 665 m. altitude, in flower in February, March, September, and December, and in fruit in December. Thomas (1936) cites only *Corbisier* 592 and Pogge 1102a from Zaïre.

Citations: ZAIRE: *Callens* 2282 (N), 3017 (N), 4063 (Ld); *Corbisier* 592 [*Hombld* 592] (Br--type, Br--isotype, Ld--photo of type, N--fragment of isotype, N--photo of type); *DeGiorgi* s.n. [*Envir. Elisabethville* 1923] (Br); *Leistner* 1459 (Mu); *Ringoet* 2 (Br), 489 (Br); *Vanderyst* 16092 (Br, Br). ANGOLA: *E. J. Mendes* 1897 (Ld, Ul); *Torre* 8790 (Ul).

CLERODENDRUM CORDIFOLIUM (Hochst.) A. Rich., Tent. Fl. Abyss. 2: 170 [as "*Clerodendron*"]. 1851; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 34, 56, & 93. 1936.

Synonymy: *Volkameria cordifolia* Hochst., Flora 25: 227. 1842. *Clerodendron cordifolium* (Hochst.) A. Rich., Tent. Fl. Abyss. 2: 170. 1851. *Clerodendron cordifolium* A. Rich. apud Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893. *Volkameria cordifolia* var. *microphylla* Schimp. ex Mold., Prelim. Alph. List Inv. Names 53 in syn. 1940. *Clerodendrum cordifolium* A. Rich., in herb.

Bibliography: Hochst., Flora 25: 227. 1842; Walp., Repert. Bot. Syst. 4: 100. 1845; Schau. in A. DC., Prodr. 11: 657. 1847; A. Rich., Tent. Fl. Abyss. 2 [Voy. Abyss. 3 (5)]: 170. 1851; Buek, Gen. Spec. Syn. Candoll. 3: 502. 1858; Kotschy, Sitzungsber. Kais. Akad. Wiss. 51: 8. 1865; Aschers. in G. Schweinf., Beitr. Fl. Aethiop. 278. 1867; Oliv., Trans. Linn. Soc. Lond. 29: 132. 1875; Engl., Hochgebirgsfl. Trop. Afr. 357. 1892; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; Gürke in Engl., Pflanzenw. Ost-Afr. C: 341. 1895; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 2: 1219. 1895; J. G. Baker in Thiselet.-Dyer, Fl. Trop. Afr. 5: 294 & 304. 1900; Gürke, Engl. Bot. Jahrb. 28: 292. 1900; DeWild., Ann. Mus. Congo Bot., ser. 5, 3: 132. 1909; Wernham, Journ. Bot. Brit. 54: 231. 1916; Chipp, Kew Bull. Misc. Inf. 1929: 185 & 193. 1929; E. A. Bruce, Kew Bull. Misc. Inf. 1934: 306. 1934; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 14, 34, 56, & 93. 1936; Mold., Prelim. Alph. List Inv. Names 53. 1940; Mold., Alph. List Inv. Names 56. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 45, 49, 50, & 89. 1942; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 561 (1946) and imp. 2, 2: 1219. 1946; Mold., Alph. List Cit. 3: 835 & 901. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 109, 110, 116, 118, & 180. 1949; Snowden, Grass Comm. Mt. Veg. Uganda 20. 1953; Tarr, Fungi Pl. Diseases Sudan 64 & 118. 1955; J. K. Jacks., Journ. Ecol. 44: 350. 1956; Mold., Résumé 133, 134, 140, 141, 143, 146, 391, & 449. 1959; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 561 (1960) and imp. 3, 2: 1219. 1960; Dale & Greenway, Kenya Trees Shrubs 582. 1961; Cuf.,

Bull. Jard. Bot. Brux. 32: Suppl. 798. 1962; Lind & Tallantire, Some Comm. Flow. Pl. Uganda, ed. 1, 147 & 238. 1962; Mold., Résumé Suppl. 9: 3. 1964; Drar, Publ. Cairo Univ. Herb. 3: 110. 1970; Lind & Tallantire, Some Comm. Flow. Pl. Uganda, ed. 2, 147, 238, & 243. 1971; Mold., Fifth Summ. 1: 210, 212, 226--228, 233, 242, & 442 (1971) and 2: 733 & 864. 1971; Lewalle, Bull. Jard. Bot. Belg. 42 [Trav. Univ. Off. Bujumb. Fac. Sci. C.20]: [230]. 1972; Mold., Phytologia 28: 441 (1974) and 31: 388. 1975; Mold., Phytol. Mem. 2: 201, 203, 211--218, 222, 223, 230, 232, & 535. 1980.

A small, often climbing subshrub or shrub, 0.4--1.5 m. tall, sparingly branched, growing in tufts, usually evergreen; stems softly pubescent; branchlets terete, unarmed, pubescent; leaves decussate-opposite, petiolate; leaf-blades subcoriaceous, obcordate-ovate, 7.5--10 cm. long, apically acuminate, marginally entire, basally cordate, glabrous above when mature, softly and finely pubescent beneath, especially on the venation; inflorescence terminal, amply paniculate, brachiate, its branches pubescent, the cymes lax; pedicels about 8 mm. long or as long as the calyx; calyx whitish or rose, turning claret or purple, about 8 mm. long, externally softly pubescent, not inflated, 5-fid to beyond the middle, the tube campanulate, the lobes ovate or ovate-lanceolate, apically acute, about as long as the tube; corolla white or cream-color, often tinged with rose in the throat, the tube slender, 1.6--2 cm. long, the lobes subequal, oblong, about 8 mm. long; stamens 4, about 2.5 cm. long, much exserted, ascending; fruiting-calyx accrescent, red-violet or purple; fruit small, drupaceous, at first green or greenish-bronze, turning black when ripe, ovoid, apically obtuse, externally smooth, often 1-seeded by abortion.

This species is based on *Schimper 1132* from the mountains near the Tacazze river, Ethiopia. Collectors have encountered it on savannas and wooded savannas, along roadsides, in *Cymbopogon afronardus* grasslands, in fire-swept grassy woodlands, forest edges, and patches of scrub, as well as in dry places in general, at altitudes of 750--2000 m., in anthesis in February, April, and July, and in fruit in January, February, and April.

The corollas are said to have been "white" on *Bergdyck 17* and by Lind & Tallantire (1962), "white, the center red" on *Van der Gucht 287*, "white with scarlet base" by Chipp (1929), "white, tinged rose in base of throat" on *Lebrun 3544*, "greenish-cream, the throat rose-red" on *Germain 511*, and "petals red, white at base" on *Liben 209*.

The species is said to be "well represented in the herbaceous layer on savannas" in Zaire. Chipp (1929) avers that it is "confined to East Africa, not reaching farther south than Tanganyika", citing his nos. 48 & 49. Kotschy (1865) cites *Binder 80* from about 7° N. lat. in Ethiopia; Lewalle (1972) cites *Lewalle 4868* from Burundi. Cufodontis (1962) cites only *Schimper 1132*; Drar (1970) cites his nos. 1084, 1085, 1155, 1415, 1510, 2099, & 2399 from the Sudan; Engler (1892) cites *Dillon s.n.* and *Schimper 19*, these apparently being the unnumbered Dillon and Schimper collections cited by Richard (1851) when he transferred the species from *Volkameria* to *Clerodendrum*. He notes that "J'avoue que je ne vois aucune différence de

quelque importance entre les deux genres *Volkameria* et *Clerodendron*. En conséquence, j'ai cru devoir rapporter l'arbuste abyssin désigné par M. Hochstetter sous le nom de *Volkameria cordifolia* au grand genre *Clerodendron*. Dans le §4 *Densiflora*, auquel elle me paraît appartenir, par son inflorescencé et la figure de ses feuilles, je n'en vois aucune dont elle ne se distingue très-facilement."

Tarr (1955) reports that in the Sudan this species is attacked by the fungus *Cercospora* sp., causing leaf spotting.

DeGraer affirms that the plant has medicinal properties [cfr. Rev. Congo Fév.-Mars 1929]. Bergdyck reports that the Azande tribesmen in Zaïre use the leaves medicinally against snakebite and regard them as very efficacious.

Vernacular names reported for the plant are "mbisibaso", "nongowa", "nungao", "yat-kwong-ubim", and "yazakum".

Wernham (1916) claims that *C. subpeltatum* Wernham has similar leaves as those of *C. cordifolium* but much larger flowers; Gürke (1900) avers that *C. subreniforme* Gürke is probably related to *C. cordifolium*, Bruce (1934) asserts that her *C. grandicalyx*, now known as *C. fuscum* Gürke, is "very similar to *C. cordifolium* A. Rich., but may be distinguished by its conspicuous calyx".

Baker (1900) cites Kotschy 497 from Senner (Sudan), Schimper 1132 from Ethiopia, and Petherdick s.n., Schweinfurth 1369 and Speke & Grant 567 & 676 from Kenya-Uganda-Tanzania. DeWilde (1909) cites Magis s.n. from Zaïre.

Thomas (1936) cites Schweinfurth 1317 & 1530 from Sudan, Neumann 155 & 156 and Schimper 19 from Ethiopia, Baker 198, Dummer 3728, and Ntoge 268 from Uganda, Grant s.n. and Trotha 23 from Tanganyika, and Jessen 411 from Angola. For some reason unknown to me he designates "Grant--9.62" as the type of the species -- this is clearly incorrect and inappropriate.

Material of *C. cordifolium* has been misidentified and distributed in some herbaria as *C. umbellatum* Poir. and as *C. umbellatum* var. *asperifolium* (Thomas) Mold.

Citations: SUDAN: Bahr El Ghazal: Drar & Mahdi 1084 (Gz), 1085 (Gz), 1155 (Gz), 1415 (Gz). Dafur: Drar & Mahdi 2099 (Gz), 2399 (Gz); Ibrahim s.n. [1958] (Gz); Lynes 1 (W--1348910), 568 (W--1349042); Schweinfurth 1369 (S). Nubia: Prince Paul of Württemberg s.n. [1819] (Mu). ETHIOPIA: Quartin-Dillon & Petit s.n. (L); Schimper 1132 (L--isotype, Ld--photo of isotype, N--photo of isotype, S--isotype, S--isotype), 1611 (L). CENTRAL AFRICAN REPUBLIC: A. Chevalier 6742 (Br, N). ZAIRE: Becquet 95 (Br, Br, Br, Br); Belot 39 (Br, N); Bergdyck 17 (Br); Blommaert 82 (Br); Bredo 1326 (Br), 1490 (Br); Claessens 1495 (Br), 1931 (Br, N); Collector undetermined 135 (Br); DeGraer 18 (Br, Br, Br); Delpierre s.n. [Uele 1904] (Br); Germain 511 (Br, Br), 708 (Br, N); Gillet s.n. [Region de Kisantu 1907] (Br, N); Lathouwers III.6 (Br, Br); Lebrun 3544 (Br, Br); Liben 209 (Mu); Magis s.n. [Durumu 1907-8] (Br); Mearns 2857 (W--632851), 2864 (W--632858); Pittery 816 (Br, N), 818 (Br, Br, N); Scops 96 (Br); Van der Gucht 287 (Br, N); Vandercyst 27563 (Br, N). BURUNDI: Reekmans 3627 (Mu). UGANDA: Brydolf s.n. [17/10/1965] (Gz); Mearns 2942 (W--632939), 3028 (Br, W--633032).

CLERODENDRUM COSTARICENSE Standl., Field Mus. Publ. Bot. 18: 1002--1003 [as "*Clerodendron*"]. 1938; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 22 & 89. 1942.

Synonymy: *Clerodendron costaricense* Standl., Field Mus. Publ. Bot. 18: 1002. 1928.

Bibliography: Standl., Field Mus. Publ. Bot. 18: 1002--1003. 1938; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 22 & 89. 1942; Mold., Alph. List Cit. 1: 58. 1946; Hill & Salisb., Ind. Kew. Suppl. 10: 55. 1947; Mold., Alph. List Cit. 2: 344 & 352 (1948) and 3: 945. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 39 & 180. 1949; Mold., Résumé 46 & 449. 1959; Mold., Fifth Summ. 1: 87 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 80 & 535. 1980.

A scandent shrub, 5 m. tall, glabrous throughout except for the inflorescence; branches slender, subterete, ochraceous; bark light-brown; internodes elongate; leaves decussate-opposite; petioles rather stout, about 1.5 cm. long; leaf-blades subpapyraceous or semi-rigid, oblong-elliptic or broadly elliptic, 11--14 cm. long, 6--9 cm. wide, apically abruptly and obtusely short-acuminate, marginally entire, basally obtuse, green and moderately shiny above, almost similarly green and shiny beneath, glabrous on both surfaces; midrib and larger venation only subprominent above, decidedly prominent beneath; secondaries about 6 per side, broadly ascending, arcuate; veinlets prominent, loosely reticulate; inflorescence axillary, 3-flowered; peduncles slender, 3--6 cm. long; bracts foliaceous, narrowly oblong-lanceolate, 1.5--2.5 cm. long, apically attenuate-acuminate; pedicels to 7 mm. long; flowers tetramerous; calyx (in closed bud) externally sparsely and minutely strigillose toward the base, otherwise glabrous, ellipsoid, 10--12 mm. long, obscurely costate, shortly lobed, the lobes broadly ovate, apically shortly caudate-apiculate; corolla hypocrateriform, very pale greenish-yellowish when opening, fading to brown, glabrous, the tube about 12 mm. long, cylindric, about 2 mm. wide, apically not dilated, the limb 4-lobed, the lobes spreading, oblong, equaling the tube in length, apically obtuse; stigma bilobed, the lobes curling.

This species is based on *Austin Smith H.588* collected in the Caribbean cloud-forest, where it was climbing over vegetation at the edge of woodland at La Pena de Zarcero, at 1650 m. altitude, Alajuela, Costa Rica, in April 1938, and is deposited in the Field Museum herbarium in Chicago. Standley (1938) cites also *Brenes 6147*. Smith notes: "fl. expanding to .35 mm."

There are some features about this plant that remind one strongly of *Aegiphila costaricensis* Mold. from the same general region.

Clerodendrum costaricense has been collected in anthesis in April and material has been misidentified and distributed in some herbaria as *Melastomaceae*.

Citations: COSTA RICA: Alajuela: *Brenes 6147* (F--1063097); *A. Smith H.588* (F--919527--type, Ld--photo of type, N--fragment of type, N--photo of type).

CLERODENDRUM COSTATUM R. Br., Prodr. Fl. Nov. Holl., imp. 1, 511. 1810.

Synonymy: *Clerodendron costatum* R. Br. apud Spreng. in L., Syst.

Veg., ed. 16, 2: 759. 1825.

Bibliography: R. Br., Prodr. Fl. Nov. Holl., imp. 1, 511 (1819) and imp. 2 [Isis 1819:] 153. 1819; Steud., Nom. Bot. Phan., ed. 1, 207. 1821; Link, Enum. Hort. Berol. 2: 127. 1822; Loud., Encycl. Pl. 522. 1829; Loud., Hort. Brit., ed. 1, 247. 1830; Sweet, Hort. Brit., ed. 2, 416. 1830; Loud., Hort. Brit., ed. 2, 247. 1832; G. Don in Loud., Hort. Brit., ed. 3, 247. 1839; G. Don in Sweet, Hort. Brit., ed. 3, 550. 1839; Steud., Nom. Bot. Phan., ed. 2, 1: 382. 1840; D. Dietr., Syn. Pl. 3: 617. 1843; Walp., Repert. Bot. Syst. 4: 105. 1845; Schau. in A. DC., Prodr. 11: 671. 1847; Buek, Gen. Spec. Syn. Candoll. 3: 106. 1858; Benth. & F. Muell., Fl. Austral. 5: 61 & 64. 1870; F. Muell., Second Syst. Cens. Austral. Pl. 1: 173. 1889; F. M. Bailey, Cat. Indig. Nat. Pl. Queensl. 36. 1890; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; F. M. Bailey, Queensl. Fl. 1182 & 1184. 1901; F. M. Bailey, Compreh. Cat. Queensl. Pl. 386. 1913; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 89, 108, & viii. 1921; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 561. 1946; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 152 & 180. 1949; Mold., Résumé 208 & 449. 1959; R. Br., Prodr. Fl. Nov. Holl., imp. 3, 511. 1960; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 561. 1960; Mold., Fifth Summ. 1: 345 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 334, 348, 384, & 535. 1980.

Brown's original (1810) description of this plant is merely "foliis ovatis obtusiusculis subtus tomentosis costatis rugosis, corymbis terminalibus axillaribusque trichotomis". The species is supposed to be endemic to Queensland and was introduced into cultivation in England, according to Loudon and Sweet (1830) in 1823 from New South Wales. The only common name recorded is the book-name "ribbed-leaved clerodendrum".

Bentham & Mueller (1870) describe and discuss the species as follows: "?*C. costatum*, R. Br. Prod. 511. A tall shrub. Leaves very broadly ovate, obtuse, 4 to 5 lines long, reticulate-rugose and velvety-tomentose underneath. Inflorescence a terminal corymbose panicle, not exceeding the leaves but longer than in *C. tomentosum*. Flowers not seen. Fruiting calyx enlarged and drupe of *C. floribundum*. -- Schau. in DC. Prodr. xi. 671. Queensland. Endeavour river, Banks and Solander. The foliage is that of *Gmelina Leichhardtii*, but the fruit undoubtedly that of *Clerodendron*, and not of *Gmelina*." Their statement that the leaves are only "4 to 5 lines" [8--10 mm.] long is amazing and doubtless is a misprint for "4 to 5 inches", especially since those of *Gmelina leichhardtii* (F. Muell.) F. Muell. are 7--14 cm. long.

Blake describes the plant as a shrub, 1.5--2.5 m. tall, with dull-green leaves which are paler beneath, and white flowers which are fragrant only at night. He encountered it on sand dunes, in anthesis in May. I have not seen the original Banks & Solander specimen, and await with keen interest the disposition of this taxon that will be made by my friend and colleague, Dr. Abid Ahmad Munir, who is now engaged in a thorough revision of the Australian Verbenaceae.

Citations: AUSTRALIA: Queensland: S. T. Blake 23310 (N).

CLERODENDRUM CRUENTUM Lindl., Gard. Chron. 1860: 456 [as "*Clerodendron*"]. 1860; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 72 & 89. 1942.

Synonymy: *Clerodendron cruentum* Lindl., Gard. Chron. 1860: 456. 1860.

Bibliography: Lindl., Gard Chron. 1860: 339 & 456. 1860; Anon., Floral World 6: 215. 1863; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; H. J. Lam, Verbenac. Malay. Arch. 317 & 363. 1919; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 94, 108, & viii. 1921; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 72 & 89. 1942; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 561. 1946; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 158 & 180. 1949; Mold., Résumé 215 & 449. 1959; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 561. 1960; Mold., Fifth Summ. 1: 358 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 348 & 535. 1980.

Lindley's original (1860) description of this species is: "foliis inflorescentiâ habitu *Clerodendri macrophylli* Blumii; pedicellis glanduloso-tomentosis, calyce angusto colorato nec foliaceo herbaceo punctato, staminibus inclusis, corollâ cruentâ. This is the plant which was exhibited a few weeks since by Messrs. Veitch (see ante, p. 339) and a noble species it is. The leaves are deep green, oblong, 10 inches in length by 4 in breadth, and there is a fine branching panicle of blood red flowers; so that it will stand in the front rank of stove shrubs. But it is in some respects so much like Blume's *Clerodendron macrophyllum* (now called *Cl. phyllomega*), that it may be a question whether it is botanically distinct. The flowers however are a very rich red, not a dirty white, the stamens do not project but are hidden in the corolla, the flower stalks are clothed with a short glandular fur, and the calyx instead of being green, dilated, and dotted, consists of five very narrow crimson lobes on which no dots are perceptible. It is therefore at any rate distinct enough in a gardening point of view. It was found by Mr. Thomas Lobb in some part of tropical Asia."

Lam (1919) comments: "Allied to *C. macrophylla* Bl., but different in the shape and colour of calyx and corolla". He lists it among his "Imperfectly known or doubtful species". Bakhuizen (1921) also includes it in his "Species unknown to me or doubtful".

Nothing is known to me of this plant beyond what is stated in its literature. If it truly has included stamens it would certainly be a most unusual taxon in this group of red-flowered species.

CLERODENDRUM CUBENSE Schau. in A. DC., Prodr. 11: 658 [as "*Clerodendron*"]. 1847; Mold., Alph. List Comm. Vern. Names 15 & 20. 1939.

Synonymy: *Clerodendron cubense* Schau. in A. DC., Prodr. 11: 658. 1847. *Clerodendron brachypus* Urb., Fedde Repert. Spec. Nov. 20: 347. 1924. *Clerodendron cubensis* A. Rich. ex Mold., Prelim. Alph. List Inv. Names 19 in syn. 1940. *Clerodendron pendulum* C. Wright ex Mold., Prelim. Alph. List Inv. Names 21 in syn. 1940. *Clerodendrom brachypus* Urb. apud Alain, Contrib. Acas. Mus. Hist. Nat. Coleg. La Salle 7: 78 sphalm. 1946. *Clerodendron cubense* Urb. ex Mold., Alph. List Inv. Names Suppl. 1: 6 in syn. 1947. *Clerodendron cubensis*

Schau. apud Roig, Diccc. Bot. Nom. Vulg. Cub. 496 sphalm. 1953.

Bibliography: Schau. in A. DC., Prodr. 11: 658. 1847; A. Rich. in Sagra, Hist. Fis. Polit. Nat. Cuba 11 (2): 146--147. 1850; Buek, Gen. Spec. Syn. Candoll. 3: 106. 1858; Sagra, Icon. Pl. Fl. Cub. 41. 1863; Griseb., Cat. Pl. Cuba 216. 1866; Benth. in Benth. & Hook. f., Gen. Pl. 2 (2): 1156. 1876; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 175. 1895; Urb., Feddes Repert. Spec. Nov. 20: 347. 1924; Fedde & Schust., Justs Bot. Jahresber. 53 (1): 1072. 1932; Mold., Alph. List Comm. Vern. Names 15 & 20. 1939; Mold., Prelim. Alph. List Inv. Names 18, 19, & 21. 1940; Mold., Alph. List Inv. Names 16, 17, & 19. 1940; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 24 & 89. 1942; Mold., Phytologia 2: 98. 1945; Alain, Contrib. Oc-as. Mus. Hist. Nat. Coleg. La Salle 7: 29, 78, & 113. 1946; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 561. 1946; Mold., Alph. List Cit. 1: 4, 63, 64, 66, 130, 139, 187, 188, 221, & 316. 1946; Mold., Alph. List Inv. Names Suppl. 1: 5--7. 1947; Mold., Alph. List Cit. 2: 418, 486, & 652 (1948), 3: 695, 867, & 889 (1949), and 4: 1034, 1038, 1094, & 1144. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 7: 43, 45, & 180. 1949; Roig, Diccc. Bot. Nom. Vulg. Cub. 2: 496, 607. 715--716, & 1005. 1953; Alain in León & Alain, Fl. Cuba, imp. 1, 4: 319 & 321. 1957; Mold., Résumé 51, 53, 259, 260, 262, 268, 271, & 449. 1959; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 561. 1960; Mold., Fifth Summ. 1: 95, 98, 438, 440, 442, 443, 452, & 460 (1971) and 2: 864. 1971; Alemán Frías, Ezcurra Ferrer, Gutiérrez Vázquez, Horstmann, López Rendueles, Rodríguez Graquitená, Roquel Casabella, & Schreiber, Die Kulturpfl. 19: 422. 1972; Farnsworth, Pharmacog. Titles 8 (8): vi. 1973; Alain in León & Alain, Fl. Cuba, imp. 2, 2: 319 & 321. 1974; Mold., Phytol. Mem. 2: 88, 91, & 535. 1980; Mold., Phytologia 52: 20 (1982) and 57: 478. 1985.

A shrub, to 2 m. tall; branches very irregular and apparently gnarled; branchlets and twigs often irregular, gray or buff in color, very obtusely tetragonal, lenticellate, verrucose, minutely puberulent to strigillose or sometimes glabrous and shiny on shoots; nodes not annulate; principal internodes 1.3--4.4 cm. long; leaves decusate-opposite, mostly relatively few clustered only on the young twigs, or approximate; petioles slender and to 3 mm. long or obsolete, glabrous; leaf-blades very firmly membranous or subcoriaceous to coriaceous when mature, gray-green or rather dark-green above, pale beneath, oblanceolate or obovate to subpanduriform, the younger ones sometimes oblong- or obovate-elliptic, 3--16 cm. long, 1.5--4.8 cm. wide, apically abruptly acute or very shortly acuminate or cuspidate to obtuse or rounded, marginally entire or subdentate, basally rounded or cordate, sometimes slightly asymmetric, glabrous and more or less impressed-punctate on both surfaces, shiny beneath; midrib slender, flattened above, prominent beneath; secondaries very slender, 5--7 per side, short, arcuate, joined near the margins, flat or subimpressed above, prominulent beneath; vein and veinlet reticulation slender, usually obscure above, the larger parts slightly prominulent beneath on mature leaves; inflorescence axillary or terminal, cymose, 2--5-flowered, mostly much shorter than the subtending leaf, the peduncles practically obsolete or sometimes to 3.5

cm. long, the sympodia and cyme-branches obsolete or to only several mm. long and puberulent; pedicels very slender and elongate, 2--5 cm. long, basally puberulent, apically usually glabrous, often bearing a pair of minute subulate bractlets toward the middle, from which point another pedicel and flower may sometimes arise; bractlets linear, 1--3 mm. long, puberulent; flowers often pendulous; calyx campanulate, about 4 mm. long, the rim somewhat spreading and entire or very shortly denticulate; corolla white, 2.5--4 cm. long, the lobes oblong, about 1 cm. long; stamens long-exserted; fruit drupaceous, globose, 6--7 mm. long and wide, green (when immature?).

This species is based on several collections made by Ramon de la Sagra in Cuba in 1833 and deposited in the DeCandolle Herbarium in Geneva, there labeled as *nos.* 208, 215, & 595, plus an unnumbered collection. Urban's *C. brachypus* was based on Ekman 16673 from Ensenada de Vega Cuchilla, Pinar del Río, Cuba, deposited in the Berlin herbarium, now destroyed.

Collectors have encountered *C. cubense* in woods, coastal thickets, and ravines, on limestone cliffs, hillsides, and wooded limestone plains, as well as in wet depressions, from sealevel to 700 m. altitude, in flower in March and April and in fruit in April and May. Cremata reports that its wood is used by natives as firewood.

Vernacular names reported for the species are "hiel de gallina", "hiel de perro", "magüira cimarrona", "oviedo amarillo", and "oviedo de flor blanca".

Material of *C. cubense* has been misidentified and distributed in some herbaria as *C. grandiflorum* (Hook.) Schau. On the other hand, the Alain & Killip 2008, distributed as *C. cubense*, really is *C. grandiflorum* (Hook.) Schau. and Herb. Hort. Bot. Bogor. 140 is not verbenaceous.

Citations: CUBA: Havana: Acuña 17679 (Es); Sagra 595 (B--fragment of cotype, Dc--cotype, Dc--cotype). Oriente: Alain 3157 (Es); Clément 4961 (Ha); León, Victorin, & Alain 19814 (N). Pinar del Río: Acuña & Roig 10873 (Es, Es); Britton, Britton, & Gager 7403 (N); Britton & Cowell 9996 (G, K, N, W--69b103); Ekman 16673 (B, E--photo, Ld--photo, Ld--photo, N--photo, S), 18728 [Herb. Roig 3112] (B, Es, N, S); Ganganelli s.n. [Herb. Roig 2061] (Es). Province undetermined: Sagra 208 (X--cotype), 215 in part (Bm--cotype, X--cotype), s.n. [Cuba; Macbride photos 33933] (F--photo of cotype, Kr--photo of cotype, Ld--photo of cotype, N--photo of cotype, P--cotype, V--cotype, W--1706395--cotype); C. Wright 3175 in part [1860-1864; Herb. Sauvalle 1779 in part] (B, Bm, Cb, E--118926; G, Hv, Hv, K, L, Oa, P, X). ISLA DE PINOS: Britton & Wilson 14859 (N), 15229 (Cm, F--459834, N, W--793538); Cremata 28 (N), s.n. [Herb. Roig 2020] (Es); Curtiss s.n. [April 1904] (N, N); Marie-Victorin & Alain 28 (Es--7517, Ha, Vi, Vi, W--1955333). MOUNTED CLIPPINGS: Urb., Feddes Repert. Spec. Nov. 20: 347. 1924 (W).

CLERODENDRUM CUMINGIANUM Schau. in A. DC., Prodr. 11: 666 [as "*Clerodendron*"]. 1847; H. Hallier, Meded. Rijks Herb. Leid. 37: 69. 1918.

Synonymy: *Clerodendron cumingianum* Schau. in A. DC., Prodr. 11: 666. 1847. *Clerodendron cumingii* Schau. ex Mold., Alph. List Inv.

Names Suppl. 1: 6 in syn. 1947.

Bibliography: Schau. in A. DC., Prodr. 11: 666. 1847; Buek, Gen. Spec. Syn. Candoll. 3: 106. 1858; Miq., Fl. Ned. Ind. 2: 875. 1858; Naves & Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 160. 1880; Vidal y Soler, Phan. Cuming. Philip. 67, 87, & 135. 1885; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 175. 1895; E. D. Merr., Philip. Journ. Sci. Bot. 7: 98. 1912; H. Hallier, Meded. Rijks Herb. Leid. 37: 69. 1918; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 76, 90, 96, 108, & viii. 1921; E. D. Merr., Enum. Philip. Flow. Fl. 3: 401. 1923; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 11 & 20. 1936; Mold., Alph. List Comm. Vern. Names 27. 1939; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 62 & 89. 1942; Mold., Phytologia 2: 98. 1945; Mold., Alph. List Cit. 1: 136. 1946; Mold., Alph. List Inv. Names Suppl. 1: 6. 1947; Mold., Alph. List Cit. 2: 462. 1948; H. N. & A. L. Mold., Pl. Life 2: 55. 1948; Mold., Alph. List Cit. 3: 848. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 141 & 180. 1949; Mold., Résumé 183, 262, & 449. 1959; Hansford, Sydowia Ann. Myc., ser. 2, Beih. 2: 694. 1961; Mold., Résumé Suppl. 3: 21. 1962; Mold., Fifth Summ. 1: 315, 349, & 443 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 306 & 535. 1980.

A shrub or treelet, 2--5 m. tall; stems 4--10 cm. in diameter; branchlets tetragonal, villous; leaves decussate-opposite; petioles 2.5--4 cm. long, villous; leaf-blades membranous, subobcordate-ovate, 10--15 cm. long, 7.5--10 cm. wide, apically acuminate, marginally entire or irregularly dentate, hirtellous above, softly villous (especially on the vein reticulation) beneath and here and there glandular-punctate beneath the pubescence; inflorescence terminal, paniculate, subfastigate, compact, many-flowered, villous; bractlets minute; flowers fragrant; calyx oblong-tubular, about 1 cm. long, often reddish, externally long-pubescent, 5-fid, the lobes apically very acute and often purple; corolla white or rose, often with a lilac throat, infundibular, twice as long as the calyx or less, the tube externally pilose-subvillous, the limb 4 times as wide as the tube; stamens long-exserted; filaments white; anthers black; style white; stigmas green; fruiting-calyx reddish, somewhat shiny; fruit drupaceous, white or violet. Schauer (1847) refers to the pubescence as "strigose-villous".

This endemic Philippine species is based on *Cuming 1761* from Cebu, Philippine Islands, deposited in the Berlin herbarium with a duplicate in the Herb. Lucae. Schauer (1847) notes that the species is related to *C. infortunatum* L. It belongs in the Subgenus *Euclerodendron* Schau. and Section *Densiflora* Schau. -- in Thomas' classification (1936) in Section *Eurycalyx* Thomas, Subsection *Paniculata* Thomas.

Fernandez-Villar (1880) found this plant growing on Luzon and Panay islands. Other collectors report encountering it in damp places near cultivated areas, while Merrill (1921) affirms that it occurs chiefly in secondary forests along streams at low altitudes. Hallier (1918), however, found it growing "im Busch an Rande des Hochwaldes". It has been collected at altitudes to 665 m., in an-

thesis from January to November, and in fruit from January to June and August to October.

The corollas are described as having been "white" on *Ebalo 1140*, *Edan Phil. Bur. Sci. 46105*, *Ramos Phil. Bur. Sci. 42689*, and *Santos 4095*, "rose" on *Loher 4420*, and "limb white, mouth and base of lobes lilac" on *Hallier 4424*.

Vernacular names reported for the plant are "bulubatana", "flor de paridà", "maltasam", "paridà", and "salumget".

Hansford (1961) reports the species as host to the fungus *Meliola clerodendricola* P. Henn. in the Philippines, based on *Philip. Bur. Sci. 32135*.

Hallier (1918) cites *Hallier 4424* & *4424a* and *Robinson 10000* from Basilan, *Elmer 13559* from Mindanao, and *Cuming 1761* from Cebu. Merrill (1923) cites *Celestino Phil. For. Bur. 7321*, *Cuming 1760*, *Ramos & Edano 38753*, *Reyes & Pascual 23078*, and *Phil. Bur. Sci. 31359*, *31368*, *35689*, & *36663* from Panay, Negros, Cebu, and Mindanao. *Loher 4420* is said to be identical with *Vidal 1650*.

Material of *C. cumingianum* has been misidentified and distributed in some herbaria as *C. macrocalyx* H. J. Lam. Some sheets of *Ramos 14477* [viz., Bz--19107] exhibit a very strong resemblance to *C. lanuginosum* Blume and may represent a natural hybrid between the two taxa. On the other hand, *Elmer 13559* is actually the type collection of *C. lanuginosum* var. *adpressipilum* Mold. and *Ramos Philip. Bur. Sci. 33102* is *C. vanoverberghii* Merr.

Citations: PHILIPPINE ISLANDS: Basilan: *DeVore & Hoover 25* (W--449567); *Reillo Philip. Bur. Sci. 15404* (Cm, Lu); *J. V. Santos 4095* (W--2246018). Bohol: *M. Ramos Philip. Bur. Sci. 42689* (Ca--242447). Cebu: *Cuming 1760* (L). Leyte: *Edano Philip. Bur. Sci. 41803* (Ca--239645). Luzon: *Loher 4420* (W--446869). Mindanao: *Ahern 549* (W--445823); *Ebalo 1140* (Ca--1189842, Mi); *Kanehira 2598* (N); *E. D. Merrill 8239* (W--901936), *11642* (Bz--19102, W--1361259); *M. Ramos 14477* (Bz--19107, Bz--19108); *Ramos & Edano Philip. Bur. Sci. 36663* (W--1260124), *84994* (Bz); *C. M. Weber 1102* (W--712321). Negros: *Celestino Philip. Bur. Sci. 7321* (W--628874); *W. D. Pierce P. 233* (W--1599589). Panay: *Edano Philip. Bur. Sci. 46105* (Bz--19101, Ca--310000, N); *Martelino & Edano Philip. Bur. Sci. 35689* (Bz--19104, W--1264081); *Ramos & Edano Philip. Bur. Sci. 31359* (Bz--19105), *31368* (N). Tawitawi: *Ramos & Edano Philip. Bur. Sci. 44009* (B, Ca--257643). LOCALITY OF COLLECTION UNDETERMINED: Collector undetermined s.n. (Pd).

CLERODENDRUM CUNEIFORME Mold., nom. nov.

Synonymy: *Clerodendron cuneatum* Gürke, Engl. Bot. Jahrb. 28: 303. 1900 [not Auct., 1967, nor Turcz. Bull. Soc. Nat. Mosc. 36 (2): 221, 1863]. *Clerodendrum cuneatum* Gürke apud B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 81 & 93. 1936. *Clerodendrum scheffleri* var. *ellipticum* Mold., Phytologia 1: 417--418. 1940.

Bibliography: Gürke, Engl. Bot. Jahrb. 28: 303. 1900; K. Schum., Justs Bot. Jahresber. 28 (1): 496. 1900; Thiseit.-Dyer, Ind. Kew. Suppl. 2: 43. 1904; Dinter, Feddes Repert. Spec. Nov. 16: 168. 1919; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 79, 108, & viii. 1921; B. Thomas, Engl. Bot. Jahrb. 68: [Gatt. Clerod.] 30,

45, 81, & 93. 1936; Mold., *Phytologia* 1: 417--418. 1940; Mold., *Known Geogr. Distrib. Verbenac.*, ed. 1, 52, 89, & 91 (1942) and ed. 2, 121, 181, & 183. 1949; Mold., *Résumé* 153, 267, & 449. 1959; Mold., *Résumé Suppl.* 9: 3. 1964; Mold., *Fifth Summ.* 1: 255. 443, & 451 (1971) and 2: 864. 1971; Mold., *Phytologia* 34: 261 & 262. 1976; Mold., *Phytol. Mem.* 2: 236, 244, & 535. 1980; H. N. & A. L. Mold. in *Dassan. & Fosb., Rev. Handb. Fl. Ceyl.* 4: 419. 1983.

A subshrub; younger branches sparingly downy; leaf-scars large, corky, elevated, with flaring margins; leaves decussate-opposite, congested on the twigs; petioles very slender, 5--15 mm. long, sparsely strigillose; leaf-blades membranous, rhomboid-obovate or broadly elliptic, 2.8--8 cm. long, 1.7--4.7 cm. wide, apically acute, marginally coarsely dentate (the teeth basally to 1 cm. wide), basally acuminate or gradually attenuate-cuneate into the petiole, softly strigose-downy or very sparsely puberulent to glabrous on both surfaces, more densely so beneath; inflorescence terminal, cymose, the cymes lax, to 5 cm. long and 10 cm. wide, 10--12-flowered, the axis and cyme-branches finely downy; bracts ovate, 8--12 mm. long, 4--6 mm. wide, short-stalked or sessile, apically obtuse, downy, the ultimate ones narrowly lanceolate, 4--5 mm. long and 1 mm. wide, apically acute; pedicels 5--10 mm. long; calyx widely campanulate, 5-fid to the middle or below, the lobes broadly ovate or almost rotund, 5--7 mm. long, apically rounded and obtuse, externally downy, internally somewhat glandulose; corolla zygomorphic, its tube about 1 cm. long, twice as long as the calyx, the lobes unequal; stamens and style long-exserted, curvate.

This species is based on *Wilms 160* from Lydenburg, Transvaal; South Africa, collected in October 1887, and on *Rehmann 6188* from Houtbosch, Transvaal. Gürke (1900) comments that "Die zur Section *Cyclonema* gehörende Art ist durch die rhomboidisch-verkehrt-eiförmigen, am Grunde keilförmigen und sehr grob gesägten Blätter und die sehr wenigblütigen Rispen ausgezeichnet und leicht kenntlich".

Clerodendrum scheffleri var. *ellipticum* was based on *M. S. Evans 544a* from Berea, at 5000--6000 feet altitude, Durban, Natal, South Africa, collected in October 1894 and deposited in the Natal Government Herbarium at Durban.

The Dehn collection, cited below, is accompanied by a hand-colored painting. The species has been collected in flower in October and December.

Thomas (1936) cites *Rehmann 6188* and *Wilms 160* from Transvaal, designating the latter collection as the type, and *Rudatis 1472* from Natal. Dinter (1919) cites *Dinter 65, 741, & 2419* from Namibia, but Friedrich-Holzhammer and his associates (1967) suggest that this is a misidentification and that the Dinter collections actually represent *C. dekindtii* Gürke.

The *Dinter 5301*, *Rogers 30464*, *Schoenfelder 52*, and *Volk 2561*, distributed as *C. cuneatum*, actually are *C. dekindtii* var. *dinteri* Thomas.

The *C. cuneatum* of Turczaninow (1863), referred to in the synonymy (above) belongs in the synonymy of *C. serratum* (L.) Moon, while

C. cuneatum Auct. belongs in the synonymy of *C. dekindii* Gürke.

Citations: ZIMBABWE: Dehn 558 (Mu, Rh--8520); Klingberg s.n. [June 1895] (S). SOUTH AFRICA: Natal: M. S. Evans 544a (N, N--photo, Na); Fries & Fries 3637 (S); Rudatis 1472 (S). LOCALITY OF COLLECTION UNDETERMINED: Volk 710a [Asis] (Mu).

CLERODENDRUM CUNNINGHAMII Benth. in Benth. & F. Muell., Fl. Austral.

5: 64 [as "*Clerodendron*"]. 1870; Mold., Known Geogr. Distrib.

Verbenac., ed. 1, 67, 69, 72, & 89. 1942.

Synonymy: *Clerodendron cunninghamii* Benth. in Benth. & F. Muell., Fl. Austral. 5: 64. 1870.

Bibliography: Benth. in Benth. & F. Muell., Fl. Austral. 5: 61 & 64. 1870; Schomb., Fl. S. Austral. 52. 1875; F. Muell., Second Syst. Cens. Austral. Pl. 1: 173. 1889; K. Schum. & Holtr., Fl. Kais. Wilhelmsh. 122. 1889; F. M. Bailey, Cat. Indig. Nat. Pl. Queensl. 36. 1890; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; F. M. Bailey, Queensl. Fl. 4: 1182 & 1184. 1901; F. M. Bailey, Compreh. Cat. Queensl. Pl. 386, pl. 11. 1913; H. J. Lam, Verbenac. Malay. Arch. 262 & 263. 1919; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 76, 89, 108, & viii. 1921; Stapf, Ind. Lond. 2: 238. 1930; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 67, 69, 72, & 89. 1942; Mold., Alph. List Cit. 1: 60, 141, & 254 (1946) and 2: 572. 1948; H. N. & A. L. Mold., Pl. Life 2: 55. 1948; Mold., Alph. List Cit. 3: 905. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 149, 152, 158, & 181. 1949; Mold., Résumé 200, 207, 208, 215, & 449. 1959; Mold., Résumé Suppl. 3: 26. 1962; Backer & Bakh., Fl. Java 2: 607. 1965; Mold., Fifth Summ. 1: 335, 345, & 358 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 325, 334, 339, 348, & 535. 1980; Munir in Morley & Toelken, Flow. Pl. Austral. 286 & 287, fig. 174a. 1983; Mold., Phytologia 58: 448. 1985.

Illustrations: F. M. Bailey, Compreh. Cat. Queensl. Pl. 386, pl. 11 (in color). 1913; Munir in Morley & Toelken, Flow. Pl. Austral. 286, fig. 174a (in color). 1983.

An erect or scandent shrub or small rather crooked tree, 1.5--16 m. tall; stems to 15 cm. in diameter at breast height; bark brown or gray, furrowed and flaking off in small rectangular scales; middle and inner bark cream-color; wood cream-color, moderately soft and light; branchlets rather slender, obtusely tetragonal, minutely and obscurely puberulent to mealy-pubescent when young, finally subglabrate, lenticellate; nodes nor annulate; leaf-scars rather large and patelliform, flat, with protruding edges; principal internodes 2.5--3.5 cm. long; leaves decussate-opposite; petioles medium-stout or slender, 1--5.5 cm. long, very minutely and obscurely puberulent or glabrate, rather deeply canaliculate above, often collapsed at base and apex in drying; leaf-blades thin-chartaceous or submembranous, rather uniformly green on both surfaces or lighter beneath, elliptic or ovate to broadly ovate or rarely oblong, 9--25 cm. long, 5--15 cm. wide, apically acutely and rather shortly acuminate, marginally entire, basally acute or acuminate to broadly rounded or subcordate, glabrous (except for the venation) above, rather densely puberulent beneath; midrib basally rather stout beneath, rapidly diminishing in

size as the apex is approached, flat above, rounded-prominent beneath; secondaries slender, about 6 per side, arcuate-ascending, obscurely joined in many loops at the very margins or not joined; tertiary veins sparse; veinlet reticulation fine, sometimes plainly visible (but not prominent) above as well as beneath, where only the larger portions are prominent; inflorescence terminal, broadly cymbose or cymose-paniculate, to 21 cm. long, 17--25 cm. wide, basally leafy, with 2--4 pairs of opposite cyme-branches, each few- to many-flowered, appressed short-pubescent; pedicels 2.5--4 cm. long, continuous with the branchlets and (along with the rachis) similarly puberulent or becoming glabrescent; bracts large and foliaceous, subtending the lowest or all pairs of inflorescence-branches, to 6 cm. long and 3 cm. wide, the upper ones much smaller, linear-lanceolate, 2--3 mm. long, 0.5--1 mm. wide, long-stipitate, similar to the leaves in all respects except size, caducous; pedicels 0.5--1 cm. long; flowers often insect-galled; calyx green, 1--1.2 cm. long, externally densely appressed-pubescent, without peltate glands, 5-fid to about the middle; corolla white or light-cream, hypocrateriform, externally glabrous, the tube slender, 4--6 cm. long, the lobes equal, oblong or obovate, 0.7--1.5 cm. long, 5--7 mm. wide, patent-recurved, apically subacute; stamens 3.5--4 cm. long, long-exserted; style 7--8 cm. long, glabrous; ovary globose, externally glabrous; fruit drupaceous, subglobose, 1--1.2 cm. long and wide, black, pulpy, 4-seeded.

This species is apparently based on unnumbered Cunningham and Halls collections, the latter from Escape Cliffs, Queensland, Australia, and is endemic to tropical Australia and New Guinea.

Bentham & Mueller (1870) describe the species as "A tall shrub, either quite glabrous or the under side of the leaves and inflorescence more or less tomentose. Leaves ovate, scarcely acuminate, often narrowed to the base, sometimes above 6 inches long and membranous, sometimes much smaller and firmer, the petiole varying from under 1 in. to above 2 in. Flowers numerous in a broad terminal corymb sometimes dense sometimes loose, with the calyx and structure nearly of *C. floribundum*, but remarkable for the long slender corolla-tube, usually exceeding 2 in., the lobes broad, not above 3 lines long. Stamens rather long. Fruiting calyx more or less funnel-shaped, shortly contracted at the base, the margins very spreading or recurved; drupe 4 or 5 lines in diameter, ripening 2 to 4 distinct pyrenes." They cite a Halls collection from Northern Australia, a Cunningham collection from Goulburn island, and Cunningham, Daemel, and Jardine unnumbered collections from Queensland. They comment that "Some of Brown's specimens, as well as others seen only in fruit and referred to *C. floribundum*, may perhaps belong to *C. Cunninghamii*. Some of F. Mueller's from Gilbert river, with more pubescent leaves, are very doubtful."

Collectors have encountered *Clerodendrum cunninghamii* in ridge forests, lower montane rainforests, grasslands, and monsoon forests on coastal dunes, from sealevel to 1000 m. altitude, in flower in April, May, and July, and in fruit in January, April, and July. White reports that it is "common in rainforests" on Long Island,

while Clemens describes it as "a scandent shrub" in Queensland. Bakhuizen (1921) suggests that *C. costatum* R. Br. may be conspecific and synonymous with this species. It is also known from cultivated material in Java, England, Guyana, and Mozambique. Material has been misidentified and distributed in some herbaria as the quite similar *C. floribundum* R. Br.

Citations: NEW GUINEA: Papua: J. Chalmers s.n. [1885] (Mb). Territory of New Guinea: M. S. Clemens 10499 (Mi), 41319 (Mi); Hoogland 5092 (W--2214236); Schlechter 18903 (Br, Ca--226567, N); Streimann & Kairo NGF.27578 (Mu). AUSTRALIA: Northern Territory: M. R. Schomburgk 149 (K). Queensland: M. S. Clemens s.n. [Mount Glorious, January 1945] (Ca--81170, Mi); Cunningham 80 (N--cotype); Dall s.n. [Rockingham Bay] (K); Halls s.n. [Escape Cliffs] (K--cotype, Ld--photo of cotype, Mi--photo of cotype, N--fragment of cotype, N--photo of cotype). AUSTRALIAN ISLANDS: Groote: Specht 269 (W--2094576). Long: C. T. White 12163 (Ca--937846). South Goulburn: Cunningham 183 (N--cotype). CULTIVATED: England: Holtze 547/1890 (K). Guyana: Herb. Bz. Guian. Bot. Gard. s.n. (K, U). Java: Herb. Hort. Bot. Bogor. XV.J.A.XXXIII.7 (Bz--26400, Bz--26401, Bz--26542, Bz, Bz, Bz, Bz, N), XV.J.A.XXXIII.7a (Bz--26402, Bz--26403, N), XV.J.A.XXXIV.2 (Bz--26405, Bz--26534, Bz, Bz, N), XV.J.A.XXXIV.2a (Bz--26406, Bz--26407, Bz, N), XV.J.A.XXXIV.2 (Bz--26404). Mozambique: A. Gomes e Sousa "C" (Ld). MOUNTED ILLUSTRATIONS: F. Bauer Icon. 956 (V), 956a (V), 956b (V); Munir in Morley & Toelken, Flow. Pl. Austral. 286, fig. 174a (Ld, Ld).

CLERODENDRUM CURRANII Elm., Leaf. Philip. Bot. 5: 1847 [as "*Clerodendron*"]. 1913; H. Hallier, Meded. Rijks Herb. Leid. 37: 66. 1918.

Synonymy: *Clerodendron curranii* Elm., Leaf. Philip. Bot. 5: 1847. 1913. *Clerodendron infortunatum* var. *curranii* (Elm.) Bakh., in herb.

Bibliography: Elm., Leaf. Philip. Bot. 5: 1847. 1913; Fedde & Schust., Justs Bot. Jahresber. 41: 387. 1918; H. Hallier, Meded. Rijks Herb. Leid. 37: 66--67. 1918; H. J. Lam, Verbenac. Malay. Arch. 288 & 363. 1919; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 89, 108, & viii. 1921; Prain, Ind. Kew. Suppl. 5, imp. 1, 61. 1921; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 62 & 89. 1942; Mold., Alph. List Cit. 1: 191. 1946; H. N. & A. L. Mold., Pl. Life 2: 55. 1948; Mold., Alph. List Cit. 2: 463. 1948; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 141 & 181. 1949; Mold., Résumé 183 & 449. 1959; Prain, Ind. Kew. Suppl. 5, imp. 2, 61. 1960; Mold., Fifth Summ. 1: 315 (1971) and 2: 864. 1971; Mold., Phytol. Mem. 2: 306 & 535. 1980.

An erect, slender shrub, or tree-like, 2.5--8 m. tall; stems 5--8 cm. in diameter at breast height, only sparingly branched from below the middle; wood very soft, white, tasteless, "with a slight greenish or foetid odor" [acc. Elmer]; pith large, white; bark very smooth, mottled brown and grayish-white, green beneath the epidermis; branches crooked, sparingly rebranched, ascending, the slender ultimate ones greenish and angular, densely avellaneous-tomentose; leaves decussate-opposite, often scattered, plainly anisophyllous; petioles about

10 cm. long but shorter on smaller leaves, densely short-pubescent with tawny hairs; leaf-blades softly membranous, descending, slightly paler green beneath, to 22.5 cm. long and 16 cm. wide on the basal half, the upper ones more reduced, apically mostly attenuately acute or acuminate, marginally entire or remotely and obsoletely sinuate-dentate, basally broadly rounded and cordate, velutinous-pubescent above, densely and softly cinereous-pubescent or -tomentose beneath, drying yellowish-brown on both surfaces; midrib straight, stouter than the secondaries; secondaries 4--6 pairs laterally ascending, the basal or stronger ones with as many sublateral tertiaries arising from the lower outer side only, with cross-bars also evident; veinlet reticulation obscure; inflorescence paniculate, terminal, erect, corymbose; peduncles green, 5--8 cm. long, angular, tomentose, subtended by foliaceous bracts; inflorescence-branches opposite, the lower ones longer, subtended by caducous bractlets, light olivaceous-tomentose, rebranched above the middle, the ultimate divisions few and short, apically floriferous; terminal flower solitary, odorless, terminating a 1-cm.-long pedicel, the pedicels of the few clustered lateral flowers shorter, all subtended by linear, densely tomentose, caducous bractlets; calyx slender-tubular, about 1.5 cm. long and apically about 7 mm. wide, externally puberulent and glandulose, 5-fid to about the middle, the lobes suboblong, subequal, at least 7.5 mm. long and 3 mm. wide, slenderly tapering to the acuminate or subcaudate apex, reticulately veined, much paler green, externally puberulent toward the apex and with a few large glands in the middle; corolla white or creamy-white with a purplish center or purple throat, hypocrateriform, about 2.5 cm. long, the basal 2/3 tubular and externally puberulent (except at the base), the tube strongly striate externally, "the distal bud portion a trifle tipped and obovately oblong" [acc. Elmer], the lobes oblong, about 8 mm. long and 4.5 mm. wide, apically obtusely rounded to acute, basally narrowed, ultimately wide-spreading, occasionally glandular-punctate, dorsally faintly puberulent toward the apex and along the distal margin, the margins below the middle undulate or obscurely and irregularly dentate; stamens 4 "or more" [acc. Elmer], inserted in the corolla-throat, 2 cm. long, glabrous, usually curved toward the distal end, strongly looped in bud; anthers elliptic, 2.5 mm. long, 1.25 mm. wide, subdorsifixed, basally tapering and sagittately lobed, apically truncately rounded, compressed, drying blackish-brown; style "articulate to ovary" (acc. Elmer), very similar to the filaments, subcompressed and laterally grooved, cream-color except for the greenish distal end; stigmas very deep-green; ovary shortly thick-columnar, basally constricted, externally glabrous.

This species is based on *Elmer 12860* from Palawan, Philippine Islands, collected in March 1911. Hallier (1918) classifies it in the Section *Paniculata* of *Euclerodendron*, citing only *Elmer 12860* and *Merrill 7237* from Palawan. Elmer (1913) asserts that it is "Only critically distinguished from *C. infortunatum* (Roxb.) Linn." and forms "extensive copses in good well drained ground among light woods bordering cogon patches at 500 feet altitude along the trail to Napsan. Named after H. M. Curran, an exforester in the Philippine

government service and who has also collected it on Palawan."

Bakhuizen (1921) reduces *C. curranii* to synonymy under *C. villosum* Blume. A vernacular name, "tabingtabing", is recorded for it. The corollas are said to have been "white" on Ebalo 576 and "white with a purplish center" on Merrill 799; Hallier (1918) describes it as "intus carnea".

Clerodendrum curranii has been collected in anthesis in February, March, May, and September. Material has been misidentified and distributed in some herbaria as *C. infortunatum* L., *C. villosum* Blume, and *C. viscosum* Vent., all of which are superficially very similar.

Citations: PHILIPPINE ISLANDS: Culi6n: E. D. Merrill 671 (W--435641). Palawan: Cenabre Philip. For. Bur. 29278 (W--1262453); Ebalo 576 (Mi); Elmer 12860 (Bi--isotype, Bz--20915--isotype, L--isotype, N--isotype, N--photo of isotype, Ut--28381--isotype, W--872792--isotype); E. D. Merrill 1299 (N), 7237 (Bz--20914, W--901865). Paragua: E. D. Merrill 799 (W--435769). Island undetermined: Herb. Philip. Bur. Sci. s.n. (Gg--32035).

CLERODENDRUM CUSPIDATUM Turcz., Bull. Soc. Nat. Mosc. 36 (2): 221 [as "*Clerodendron*"]. 1863; Mold., Prelim. Alph. List Inv. Names 19. 1940.

Synonymy: *Clerodendron cuspidatum* Turcz., Bull. Soc. Nat. Mosc. 36 (2): 221. 1863.

Bibliography: Turcz., Bull. Soc. Nat. Mosc. 36 (2): 221. 1863; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; Mold., Prelim. Alph. List Inv. Names 19. 1940; Mold., Alph. List Inv. Names 17. 1942; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 561. 1946; Mold., Alph. List Cit. 3: 903. 1949; Mold., R6sum6 262 & 449. 1959; Mold., R6sum6 Suppl. 1: 5. 1959; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 561. 1960; Mold., Fifth Summ. 1: 443 (1971) and 2: 864 & 968. 1971; Mold., Phytol. Mem. 2: 107 & 535. 1980.

Turczaninow's original (1863) description of this plant is: "(*Eucclerodendra racemiflora*), Cl. ramis tetragonis pubescentibus; foliis oppositis petiolatis utrinque longe attenuatis, medio inaequaliter serratis, in utraque pagina pubescentibus; racemo terminali folia superante confertiflora, bracteis lanceolatis flores sessiles aequantibus interstincto; calycibus striatis bilabiatis, labio superiore integro obtuso, inferiore 4 dentato; filamentis longe exsertis flores triplo excedentibus. Flores albi e schedula, bracteeae utrinque attenuatae rubrae. Forma calycis jam a congeneribus bene distinguitur, praeter alios characteres. In provincia Ocana, prope Convenecon, alt. 3000 ped. *Schlim No. 714.*"

Nothing is known to me about this species beyond what is given in the above bibliography. The type locality is in Norte de Santander, Colombia.

CLERODENDRUM CYRTOPHYLLUM Turcz., Bull. Soc. Nat. Mosc. 36 (3): 222 [as "*Clerodendron*"]. 1863; Mold., Prelim. Alph. List Inv. Names 18, 19, & 23. 1940.

Synonymy: *Clerodendron cyrtophyllum* Turcz., Bull. Soc. Nat. Mosc. 36 (3): 222. 1863. *Clerodendron amplius* Hance, Ann. Sci. Nat., ser.

5, 5: 233. 1866. *Clerodendron formosanum* Maxim., Bull. Imp. Sci. St.-Petersb. 31: 85--86. 1886. *Cordia venosa* Hemsl. in Forbes, Journ. Linn. Soc. Lond. Bot. 26: 143. 1890. *Clerodendron glaberrima* Hayata ex Kawakami, List Pl. Formos. 84. 1910; Journ. Coll. Sci. Univ. Tokyo 30: 216. 1911. *Clerodendron cytophyllum* Turcz. apud Worsdell, Ind. Lond. Suppl. 1: 238 sphalm. 1941. *Clerodendron crytophyllum* Wiltshire, Commonw. Mycol. Inst. Ind. Fungi 1: 422 sphalm. 1954. *Clerodendron cystophyllum* Turcz. ex Mold., Résumé 259 in syn. 1959. *Clerodendron cystophyllum* Turcz. ex Mold., Résumé 259 in syn. 1959. *Clerodendron crytophyllum* Turcz. ex Hsu, Taiwania 14: 14 sphalm. 1968. *Clerodendrum formosanum* Maxim. apud Hsiao, Fl. Taiwan 4: 421. 1978. *Clerodendrum glaberrimum* Hayata apud Hsiao, Fl. Taiwan 4: 421. 1978.

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[to be continued]